

REMARKS

The enclosed is responsive to the Examiner's Office Action mailed on May 14, 2007. At the time the Examiner mailed the Office Action, claims 1-23 were pending and of those, claims 13-18 were withdrawn in response to restriction/election requirement.

No claims have been amended. No claims have been added. No claims have been canceled. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicant submits that the amendments do not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

The Examiner rejected claims 1-3 and 10-12 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,396,234 by Gebert et al. (hereinafter "Gebert").

Claim 1 includes impedance variation means for varying the impedance of the verification loop.

Gebert discloses the traffic monitoring equipment that has a signal validation facility. More specifically, Gebert refers to in-road sensors to detect passage of vehicles and validating the results obtained by these sensors (Abstract, col. 1, line 59-col. 3, line 45). Gebert discloses that validating of the results obtained by the in-road sensors is done by checking the order in which the sensors are activated, and comparing the signals from each of these sensors (col. 2, lines 1-35), by checking the strength of the signals obtained from these sensors (col. 2, lines 44-59), or by performing the electromagnetic interference check.

In particular, Gebert discloses

An Electromagnetic Interference (EMI) check can be performed. EMI radiated through the air or conducted along wires, from sources such as, for example, two-way radios, high frequency communication, high tension cables or lightning, noise generated from switching/controlling circuits, e.g. thyristors, DC motors, etc., can be monitored by the instrument to ensure that no EMI interference is present

during and in between measurements. To the extent thus that the external cables act as antennas for electromagnetic energy fields and any risk of this causing measurement errors can be excluded.

(Gebert, col. 3, lines 3-15)(emphasis added)

Further, Gebert discloses

... apparatus for validation checks of the equipment, said validation apparatus comprising capacitance monitoring means for monitoring said capacitance of the cables said monitoring means having detection means selected from the group consisting of means for detection of frequency changes, means for detection of phase changes, and means for detection of changes in natural frequency and ringing of the cable, said detection means determining changes in cable capacitance by utilizing said cable as a capacitive element in a reactive measurement circuit.

(Gebert, col. 10, lines 13-23) (emphasis added)

Thus, Gebert merely discloses monitoring the electromagnetic interference (EMI), and other monitoring means to validate the signals obtained by the in-road sensors. In fact, Gerbert fails to disclose means for actually varying any of the quantities (frequency, phase, or capacitance). In contrast, claim 1 refers to impedance variation means for varying the impedance of the verification loop.

Because Gebert fails to disclose all limitations of claim 1, applicant respectfully submits that claim 1 is not anticipated by Gebert under 35 U.S.C. § 102(b).

Given that claims 2-3 and 10-12 depend from claim 1, and add additional limitations, applicant respectfully submits that claims 2-3 and 10-12 are not anticipated by Gebert under 35 U.S.C. § 102(b).

The Examiner rejected claims 4-9 & 19-23 under 35 U.S.C. § 103(a) as being unpatentable over Gebert in view of U.S. Patent No. 6,864,804 by Allen et al. (hereinafter, "Allen").

It is respectfully submitted that neither Gebert, nor Allen disclose impedance variation means for varying the impedance of the verification loop, as recited in claim 1.

It is respectfully submitted that Gebert does not teach or suggest a combination with Allen, and Allen does not teach or suggest a combination with Gebert. It would be impermissible hindsight, based on applicant's own disclosure, to combine Gebert and Allen.

Gebert teaches validation checking in traffic monitoring equipment (Abstract). More specifically, Gebert teaches a series of in-road sensors (col. 2, lines 1-15). Gebert teaches using these sensors for self-checking the results obtained by these sensors (Abstract, col. 2, lines 16-43). In particular, the portion of the reference cited by the Examiner (col. 3, lines 3-15, 25-30) refers to checking the electromagnetic interference, and other monitoring means (col. 10, lines 15-23) to validate the signals obtained by the in-road sensors.

Allen, in contrast, teaches the ferromagnetic loop for detecting vehicles (Abstract). More specifically, Allen teaches the ferromagnetic loop for sensing moving vehicles and classifying vehicles for toll road applications (col. 2, lines 9-12). Allen refers to the ferromagnetic loop that is installed on a travel path for detection of vehicles moving in a direction along the travel path (**Figure 27**, col. 19, lines 14-27). Thus, Allen merely refers to a loop sensor for the detection of the vehicle rather than a verification apparatus for verifying such a loop sensor, as recited in claim 1.

Furthermore, even if the traffic monitoring equipment of Gebert and the ferromagnetic loop of Allen were combined, such a combination would still lack impedance variation means for varying the impedance of the verification loop, as recited in claim 1.

Given that claims 4-9 depend from claim 1, and add additional limitations, applicant respectfully submit that claims 4-9 are not obvious under 35 U.S.C. § 103(a) over Gebert in view of Allen.

Claim 19 includes an array of elongate linking conductors each extending from one edge conductor to the other edge conductor, each linking conductor being associated with a switch for completing a conducting path along that linking conductor from one edge conductor to the other edge conductor; and activating the switches in such a way that a plurality of adjacent linking conductors simultaneously have complete conducting paths linking the edge conductors, so as to produce an effective area of conducting material.

It is respectfully submitted that neither Gebert, nor Allen discloses such limitations of claim 19.

The Examiner stated that “Gebert does notmention the verification apparatus.. [that] includes two substantially parallel elongate edge conductors” (Office Action, p. 6, 05/14/07).

It is respectfully submitted that Gebert does not teach or suggest a combination with Allen, and Allen does not teach or suggest a combination with Gebert. It would be impermissible hindsight, based on applicant’s own disclosure, to combine Gebert and Allen.

Gebert teaches a series of in-road sensors (Abstract). More specifically, Gebert refers to in-road sensors to detect passage of vehicles and validating the results obtained by these sensors (Abstract, col. 1, line 59-col. 3, line 45). In particular, Gebert discloses:

Automatic sequence detection from an arbitrary array of cables can be implemented by monitoring and comparing the sequence of pulses of a number of vehicles after the instrument was switched on. This sequence is then memorised as being correct and any sequence of pulses other than this memorised sequence will be rejected as described above.

(Gebert, col. 2, lines 30-36) (emphasis added)

Further, Gebert discloses:

An Electromagnetic Interference (EMI) check can be performed. EMI radiated through the air or conducted along wires, from sources such as, for example, two-way radios, high frequency communication, high tension cables or lightning, noise

generated from switching/controlling circuits, e.g. thyristors, DC motors, etc., can be monitored by the instrument to ensure that no EMI interference is present during and in between measurements. To the extent thus that the external cables act as antennas for electromagnetic energy fields and any risk of this causing measurement errors can be excluded.

(Gebert, col. 3, lines 3-15)(emphasis added)

Thus, the portions of Gebert cited by the Examiner (col. 2, lines 30-36 and col. 3, lines 3-15) refer to detecting the signals, and other monitoring means (col. 10, lines 15-23) to validate the signals obtained by the in-road sensors.

Allen, in contrast, teaches the ferromagnetic loop for detecting vehicles (Abstract). More specifically, Allen teaches the ferromagnetic loop for sensing moving vehicles and classifying vehicles for toll road applications (col. 2, lines 9-12). Allen refers to the ferromagnetic loop that is installed on a travel path for detection of vehicles moving in a direction along the travel path (**Figure 27**, col. 19, lines 14-27). Thus, Allen merely refers to a loop sensor for the detection of the vehicle.

Furthermore, even if the traffic monitoring equipment of Gebert and the ferromagnetic loop of Allen were combined, such a combination would still lack an array of elongate linking conductors each extending from one edge conductor to the other edge conductor, each linking conductor being associated with a switch for completing a conducting path along that linking conductor from one edge conductor to the other edge conductor; and activating the switches in such a way that a plurality of adjacent linking conductors simultaneously have complete conducting paths linking the edge conductors, so as to produce an effective area of conducting material, as recited in claim 19.

Therefore, applicant respectfully submits that claim 19 is not obvious under 35 U.S.C. § 103(a) over Gebert in view of Allen.

Given that independent claims 20, 22, and 23 contain limitations that are substantially similar to those discussed with respect to claim 19, applicant respectfully submits that independent claims 20, 22, and 23 are not obvious under 35 U.S.C. § 103(a) over Gebert in view of Allen.

Given that claim 21 depends from claim 19, and add additional limitations, applicant respectfully submits that claim 21 is not obvious under 35 U.S.C. § 103(a) over Gebert in view of Allen.

Applicant respectfully submits that the applicable rejections and objections have been overcome. If any additional fees are required not covered by any check submitted, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 08/14/2007



Tatiana Rossin
Reg. No. 56,833

1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300
Customer No.: 08791



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Judy L. Steinkraus
Judy L. Steinkraus

08/14/2007

The following has been received in the U.S.P.T.O. on the date stamped hereon:

Application No.: 10/530,103 Filing/Issue Date: 07/19/2005 Docket No.: 6889.P002

Date Mailed: 08/14/2007 Due Date(s): 08/14/2007

Client: Golden River Traffic Limited

Atty/Sec: LJV TVR jxs

Title: VERIFICATION OF LOOP SENSING DEVICES

First Named Inventor: «Inventor»

Transmittal Letters & Certificate of Mailing

- ☒ Transmittal Letter
- ☐ Fee Transmittal (original & copy)
- ☐ RCE (Request for Continued Examination)
- ☐ Transmittal of Formal Drawings
- ☐ Issue Fee Transmittal (original & copy)
- ☒ Certificate of Mailing
- ☐ Express Mail No.: «Expressmail»

Missing Parts, Formal Papers

- ☐ Response to Notice of Missing Parts & PTO Copy
- ☐ Assignment & Cover sheet (____ pgs.)
- ☐ Declaration & POA (____ pgs.)

Amendment / Response

- ☒ Amendment/Response (13 pgs.)
- ☐ Examiner Interview Summary (____ pgs.)
- ☐ Other: _____

Petitions & Appeals

- ☐ Petition for Extension of Time:
- ☐ Notice of Appeal
- ☐ Appeal Brief (____ pgs. each)
- ☐ Reply Brief (____ pgs.)

Other

- ☐ Information Disclosure Statement & PTO/SB/08 (____ pgs.) (previously 1449)
- ☐ Request to Publish (Rescind NonPublication)
- ☐ Drawings: ____ sheets, ____ figures
- ☐ Terminal Disclaimer
- ☒ Postcard ☒ Total Number of Claims 17/5

Checks

- ☐ Check No. ____ Amount \$ ____
- ☐ Check No. ____ Amount \$ ____